10/038,554

=> d l1 L1 HAS NO ANSWERS L1 STR

G1 0,S

G2 [@1],[@2],[@3],[@4]

G3 S,Me

Structure attributes must be viewed using STN Express query preparation.

=> d his

(FILE 'CAPLUS' ENTERED AT 06:21:00 ON 21 AUG 2003)
DEL HIS

FILE 'REGISTRY' ENTERED AT 06:27:09 ON 21 AUG 2003

L1 STRUCTURE UPLOADED

L2 5 S L1

L3 170 S L1 FULL

L4 145 S L3 AND CAPLUS/LC

L5 25 S L3 NOT L4

L6 0 S L5 AND CAOLD/LC

FILE 'CAPLUS' ENTERED AT 06:31:00 ON 21 AUG 2003

L7 71 S L3

RN 184957-40-2 CAPLUS

CN 3H-Indolium, 2-[2-[4-[(2-aminoethyl)amino]phenoxy]-3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

$$H_2N-CH_2-CH_2-NH$$

Me

 Me
 $CH-CH$
 $CH-CH$
 $CH-CH$
 $CH_2)_4-SO_3H$

IT 184957-40-2

RL: RCT (Reactant); RACT (Reactant or reagent) (platinum-based linkers prepn. for labeling bioorg. mols. for detection

and diagnosis)
RN 184957-40-2 CAPLUS

CN 3H-Indolium, 2-[2-[4-[(2-aminoethyl)amino]phenoxy]-3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

$$H_2N-CH_2-CH_2-NH$$

Me

 Me
 $CH-CH$
 $CH-CH$
 CH_2) $_4-SO_3H$

10/038,554 Page 1

CAPLUS COPYRIGHT 2003 ACS on STN L7 ANSWER 55 OF 71

1996:366130 ACCESSION NUMBER: CAPLUS

DOCUMENT NUMBER: 125:99952

Photographic element with ether dye for near-infrared TITLE:

antihalation

Fabricius, Dietrich M.; Schelhorn, Thomas INVENTOR(S):

PATENT ASSIGNEE(S): E. I. Du Pont De Nemours and Company, USA

U.S., 14 pp., Cont.-in-part of U.S. Ser. No. 195,068, SOURCE:

abandoned.

CODEN: USXXAM

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5519145	A	19960521	US 1994-225388	19940408
JP 07287346	A2	19951031	JP 1995-82178	19950407
US 5536626	A	19960716	US 1995-445455	19950531
PRIORITY APPLN. INFO.	:		US 1994-195068	19940214
			US 1994-225388	19940408

OTHER SOURCE(S): MARPAT 125:99952

GI

$$R^4$$
 X^1
 $CH = CH$
 $CH - CH$
 R^6
 R^7
 R^7
 R^7
 R^7

A novel dye and photog. element comprising the dye are disclosed. is esp. useful as an antihalation dye in a photog. element. A particularly preferred embodiment is provided in a photog. element comprising an absorbing amt. of the dye having the general formula I wherein X1, X2 independently represents CR8R9, S, Se, NR10, CH=CH, or O; R1 and R2 independently represent alkyl of 1 to 10 carbons or substituted alkyl of 1 to 10 carbons; R3 represents a ring chosen from the set consisting of arom. rings of 6 or 10 carbons, substituted arom. rings of 6 or 10 carbons, heterocyclic rings and substituted heterocyclic rings; R4, R5, R6, and R7 independently represent hydrogen, alkyl of 1-10 carbons, substituted alkyl of 1-10 carbons; R8, R9 independently represent alkyl of 1-10 carbons, substituted alkyl of 1-10 carbons, arom. ring of 6 or 10 carbons, substituted arom. ring of 6 or 10 carbons; R10 represents alkyl of 1-10 carbons, substituted alkyl of 1-10 carbons, arom. ring of 6 or 10 carbons, substituted arom. ring of 6 or 10 carbons; O represents a counterion; and n is an integer of 2 and 3.

173536-21-5P 173536-23-7P 173536-25-9P ${f IT}$ 173536-27-1P 173536-29-3P 173536-30-6P 173536-32-8P 173536-34-0P 173536-35-1P 173536-37-3P 173536-40-8P 173536-41-9P 173536-43-1P 173536-44-2P 173536-46-4P 173536-49-7P 173536-50-0P 179028-69-4P

179028-73-0P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. and use as near-IR antihalation dye for silver halide photog. films)

RN 173536-21-5 CAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(4-methoxyphenoxy)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-20-4 CMF C38 H41 N2 O2

CM 2

CRN 37181-39-8 CMF C F3 O3 S

RN 173536-23-7 CAPLUS

CN 3H-Indolium, 2-[2-[2-[4-(2-amino-2-oxoethyl)phenoxy]-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, chloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ &$$

● Cl -

RN 173536-25-9 CAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-[4-(ethoxycarbonyl)phenoxy]-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-24-8 CMF C40 H43 N2 O3

CM 2

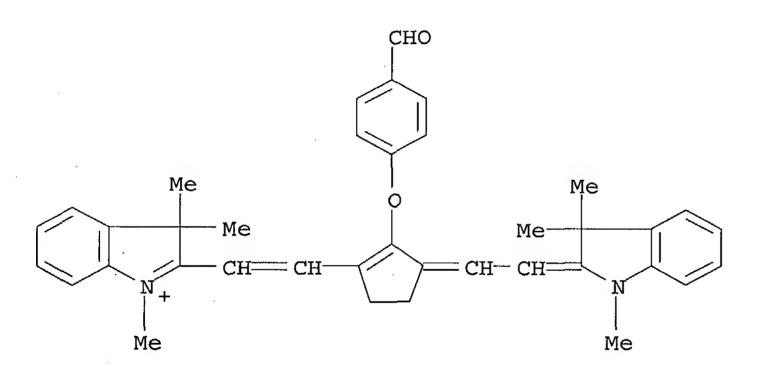
CRN 37181-39-8 CMF C F3 O3 S

RN 173536-27-1 CAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(4-formylphenoxy)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-26-0 CMF C38 H39 N2 O2



CM 2

CRN 37181-39-8 CMF C F3 O3 S

RN 173536-29-3 CAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(4-sulfophenoxy)-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

10/038,554 Page 1

```
L7
                      CAPLUS COPYRIGHT 2003 ACS on STN
     ANSWER 50 OF 71
ACCESSION NUMBER:
                         1997:34059 CAPLUS
DOCUMENT NUMBER:
                         126:57117
TITLE:
                         Methods for the production of platinum-based linkers
                         between labels and bio-organic molecules, for labeling
                         bio-organic molecules, for detecting biological
                         substances of interest and diagnostic test kits
                         Houthoff, Hendrik Jan; Reedijk, Jan; Jelsma, Tinka;
INVENTOR(S):
                         Van Es, Remco Maria; Van Den Berg, Franciscus Michiel;
                         Lempers, Edwin Leo Mario; Bloemink, Marieke Johanna
                         Kreatech Biotechnology B.V., Neth.; Houthoff, Hendrik
PATENT ASSIGNEE(S):
                         Jan; Reedijk, Jan; Jelsma, Tinka; Van Es, Remco Maria;
                         Van Den Berg, Franciscus Michiel; Lempers, Edwin Leo
                         Mario; Bloemink, Marieke Johanna
SOURCE:
                         PCT Int. Appl., 36 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                           APPLICATION NO.
     PATENT NO.
                      KIND
                            DATE
                                                             DATE
                       A1
                            19961114
     WO 9635696
                                           WO 1996-NL198
                                                             19960508
         W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,
             ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT,
             LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
             SG, SI
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN
     CA 2218815
                       AA
                                           CA 1996-2218815
                            19961114
                                                            19960508
     AU 9657040
                                           AU 1996-57040
                                                             19960508
                       A1
                            19961129
                       B2
     AU 724320
                            20000914
     JP 11505533
                       T2
                                                             19960508
                            19990521
                                           JP 1996-533965
    NZ 307633
                       Α
                            20000128
                                           NZ 1996-307633
                                                             19960508
     EP 1019420
                       A1
                            20000719
                                           EP 1996-915218
                                                             19960508
     EP 1019420
                       B1
                            20030806
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
PRIORITY APPLN. INFO.:
                                        EP 1995-201197
                                                          A 19950509
                                        WO 1996-NL198
                                                          W 19960508
                        CASREACT 126:57117; MARPAT 126:57117
OTHER SOURCE(S):
     The present invention provides improved methods of producing platinum
AB
     compds., which are very suitable for producing labeled substances, which
     can be used to detect specific mols. of interest. The platinum
     coordination compds. have two reactive groups of which one is replaced by
     a label and the other one can be replaced by a substance to be labeled.
     Prodn. of labeled substances is very much improved by selection of the
     right starting materials and producing the right intermediates.
     efficiency of labeling is very much improved, thereby enabling the prodn.
     of labeling kits which are also a part of the present invention.
     methods can be used for the detection of, e.g., various microorganisms and
     gene translocations/abnormalities.
     184957-40-2DP, complexes with platinum ethylenediamine
{f IT}
    RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic
    preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant
```

(platinum-based linkers prepn. for labeling bioorg. mols. for detection and diagnosis)

or reagent); USES (Uses)

10/038,554 Page 1

L7 ANSWER 59 OF 71 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: DOCUMENT NUMBER:

1995:794888 CAPLUS

DOCOME

123:286528

TITLE:

Preparation of infrared dye-marked nucleotides for marking, detection, and sequencing of nucleic acids.

APPLICATION NO. DATE

INVENTOR(S):

Muehlegger, Klaus; Hoeltke, Hans-Joachim; Birkner,

Christian; Eltz, Herbert Von

PATENT ASSIGNEE(S):

Boehringer Mannheim GmbH, Germany

SOURCE:

Ger. Offen., 7 pp. CODEN: GWXXBX

DOCUMENT TYPE: LANGUAGE: Patent German

KIND DATE

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

~ - ·	4006466			1005										
	4326466													
	2145405						CA	1994	-21454	:05	1994	0730		
	2145405													
WO	9504747		A1	1995	0216		WO	1994	-EP254	: 1	1994	0730		
	W: AU,	CA, F	T,	JP, KR,	NO,	NZ,	US							
	RW: AT,	BE, C	H,	DE, DK,	ES,	FR,	GB, C	GR, I	E, IT,	LU	, MC,	NL,	PT,	SE
ΑU	9474611												-	
	671928													
\mathbf{EP}	663922		A1	19950	726		EP	1994	-92430	5	1994	0730		
	663922													
	07507576						JP	1994	-50620	7	1994	0730		
	2966524									•				
	186304						ΆT	1994	-92430	5	1994	0730		
	2140551													
IIS	6573374		B1	2003							1995			
	9501630								-1630					
	9501319								-1319					
	9659424						AU	T 3 3 6	-59424		1996	0.7.10		
	682290													
	11286498					·	JP	1999	-12975		1999	0121		
	3266865													
DRITY	Y APPLN.	INFO.:				D.	E 199	93-43	26466	A	1993	0806		
						J.	P 199	94-50	6207	A3	1994	0730		
						W	0 199	94-EP	2541	W	1994	0730		

OTHER SOURCE(S):

MARPAT 123:286528

GI

$$Q^{1} = \mathbb{R}^{2}$$

$$\mathbb{R}^{1}$$

$$\mathbb{R}^{2}$$

$$\mathbb{R}^{2}$$

$$\mathbb{R}^{2}$$

$$\mathbb{R}^{2}$$

$$\mathbb{R}^{3}$$

$$\mathbb{R}^{3}$$

$$\mathbb{R}^{4}$$

$$\mathbb{R}^{2}$$

$$\mathbb{R}^{3}$$

$$\mathbb$$

Title compds. (I; B = residue of adenine, guanine, hypoxanthine, AB7-desazaadenine, 7-desazaguanine, 7-desazahypoxanthine, 7-desaza-8-azaadenine, 7-desaza-8-azaguanine, 7-desaza-8-azahypoxanthine, thymine, cytosine, uracil; X = linking group; n = 4-20; Sig = fluorescent mol. having an excitation wavelength of 650-800 nM, e.g., Q1; R1, R2 = H; R1R2 = atoms to form a Ph ring; R3 = H, NHCS bond to B; R4, R5 = alkylsulfonyl with m = 3-5, or R4 = NHCS with m = 3-8), were prepd. 8-aminopentylamino-2'-desoxyadenosine-5'-triphosphate and anhydro-10,12-propylene-3,3,3',3'-tetramethyl-1,1'-bis(3-sulfobutyl)-11-(4isothiocyano) phenoxyindotricarbocyanine Na salt were kept in DMF with protection from light to give anhydro-10,12-propylene-3,3,3',3'tetramethyl-1,1'-bis(3-sulfobutyl)indotricarbocyanin-11-(4-amino)phenoxythiono-[8-(5-aminopentylamino)-2'-desoxyadenosine-5'-triphosphate] This may be used as a substrate for T7 DNA polymerase (no details).

IT 167847-81-6P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of IR dye-marked nucleotides for marking, detection, and sequencing of nucleic acids)

RN 167847-81-6 CAPLUS

CN 3H-Indolium, 2-[2-[2-[4-[2-[[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]oxy]ethyl]phenoxy]-3-[[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)

IT 167847-85-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of IR dye-marked nucleotides for marking, detection, and sequencing of nucleic acids)

RN 167847-85-0 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]ethylidene]-2-[4-(2-hydroxyethyl)phenoxy]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, monosodium salt (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ \text{Me} \\ \text{CH} \\ \text{CH} \\ \text{CH} \\ \text{CH} \\ \text{CH} \\ \text{CH}_2)_3 \\ \text{CH}_2)_3 \\ \end{array}$$

L7 ANSWER 1 OF 71 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER:

2003:545724 CAPLUS

DOCUMENT NUMBER:

139:102420

TITLE:

Cyanine dye for labeling of biomolecules

INVENTOR(S):

Narayanan, Narasimhachari

PATENT ASSIGNEE(S):

Li-Cor, Inc., USA

SOURCE:

U.S., 20 pp., Cont.-in-part of U.S. Ser. No. 143,153,

abandoned.
CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

12

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE		APPLICATION N	ю.	DATE
US 6593148	B1	20030715		US 2000-52077	'0	20000307
US 5571388	A	19961105		US 1994-20462		19940301
US 6086737	A	20000711		US 1995-50069	1	19950711
PRIORITY APPLN.	INFO.:		US	1994-204627	A2	19940301
			US	1995-500691	А3	19950711
			US	1998-143153	B2	19980820
			US	1984-594676	Α3	19840329
			US	1987-78279	B2	19870727
			US	1990-570503	A2	19900821
•			US	1990-632605	B1	19901224
			US	1991-763230	A3	19910920
			US	1991-799712	В1	19911126
	•		US	1992~860140	A2	19920330
			US	1992-950734	A3	19920924
			US	1993-18806	A3	19930217
			US	1994-275232	B2	19940714
			US	1994-288461	A2	19940810

GI

- AB The IR-fluorescent cyanine dye I for labeling of biomols. was disclosed. A synthesis starting with the Cl (in place of NCS) analog of I was described.
- IT 166547-11-1

RL: TEM (Technical or engineered material use); USES (Uses)

10/038,554

Page 2

(cyanine dye for labeling of biomols.)

RN 166547-11-1 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-(4-isothiocyanatophenoxy)-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, trisodium salt (9CI) (CA INDEX NAME)

3 Na

IT 560095-28-5P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. of cyanine dye for labeling of biomols.)

RN 560095-28-5 CAPLUS

CN 3H-Indolium, 2-[2-[4-(2-carboxyethyl)phenoxy]-3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt, monosodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 173536-28-2 CMF C37 H39 N2 O4 S

CM 2

CRN 37181-39-8 CMF C F3 O3 S

RN 173536-30-6 CAPLUS

CN 3H-Indolium, 2-[2-[2-(4-carboxyphenoxy)-3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)

●4 Na

RN 173536-32-8 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-(4-methoxyphenoxy)-1-cyclopenten-1-yl]ethenyl]-1,1,3-trimethyl-, chloride (9CI) (CA INDEX NAME)

● Cl -

RN 173536-34-0 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(4-methoxyphenoxy)-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, sodium salt, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 173536-33-9

CMF C52 H56 N2 O14 S4

CM 2

CRN 121-44-8 CMF C6 H15 N

RN 173536-35-1 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(4-methoxyphenoxy)-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-3-(4-sulfobutyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)

RN 173536-37-3 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-[4-(ethoxycarbonyl)phenoxy]-1-cyclopenten-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173536-36-2 CMF C48 H47 N2 O3

CM 2

CRN 16722-51-3 CMF C7 H7 O3 S

RN 173536-40-8 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-[4-(ethoxycarbonyl)phenoxy]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, chloride (9CI) (CA INDEX NAME)

• C1 ~

RN 173536-41-9 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-(4-formylphenoxy)-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, chloride (9CI) (CA INDEX NAME)

● Cl -

RN 173536-43-1 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7,9-disulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(4-sulfophenoxy)-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7,9-disulfo-3-(4-sulfobutyl)-, innersalt, hexasodium salt (9CI) (CA INDEX NAME)

●6 Na

RN 173536-44-2 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-[4-(carboxymethyl)phenoxy]-3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)

HO₂C-CH₂

HO₃S

Me Me Me

CH-CH

CH-CH

CH-CH

(CH₂)
$$_4$$
-SO₃H

 $_{-O_3}$ S-(CH₂) $_4$

•4 Na

RN 173536-46-4 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-(4-carboxyphenoxy)-3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)

HO3S

Me Me

CH-CH

CH-CH

CH-CH

CH-CH

(CH2)
$$4$$
-SO3H

 $-$ O3S-(CH2) 4

4 Na

RN 173536-49-7 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[4-(2-amino-2-oxoethyl)phenoxy]-3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, trisodium salt (9CI) (CA INDEX NAME)

HO3S

Me Me

CH— CH— CH— CH— CH— CH— CH—
$$\frac{1}{1}$$

(CH₂)₄—SO₃H $\frac{1}{1}$

(CH₂)₄—SO₃H $\frac{1}{1}$

(CH₂)₄—SO₃H $\frac{1}{1}$

•3 Na

RN 173536-50-0 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(4-sulfophenoxy)-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)

●4 Na

RN 179028-69-4 CAPLUS

CN 3H-Indolium, 2-[2-[2-[4-(carboxymethyl)phenoxy]-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 179028-68-3 CMF C39 H41 N2 O3

CM 2

CRN 37181-39-8 CMF C F3 O3 S

RN 179028-73-0 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-[4-(ethoxycarbonyl)phenoxy]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, chloride, 4-methylbenzenesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 173536-40-8 CMF C49 H49 N2 O3 . Cl

● Cl -

CM 2

CRN 104-15-4 CMF C7 H8 O3 S

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Page 2

2H-indol-2-ylidene]ethylidene]-2-[(4-sulfophenyl)thio]-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, tetrapotassium salt (9CI) (CA INDEX NAME)

●4 K

RN 158498-55-6 CAPLUS

CN 3H-Indolium, 2-[2-[2-[(4-carboxyphenyl)thio]-3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, tetrapotassium salt (9CI) (CA INDEX NAME)

●4 K

RN 158498-60-3 CAPLUS

CN 3H-Indolium, 2-[2-[2-(4-carboxyphenoxy)-3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, tetrapotassium salt (9CI) (CA INDEX NAME)

HO3S Me Me CH CH CH CH CH CH
$$\sim$$
 CH2) $_4-$ SO3 $^-$ HO3S \sim (CH2) $_4$

● 4 K

RN 158498-67-0 CAPLUS

CN 3H-Indolium, 2-[2-[2-[5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-1-(2-sulfoethyl)-3-pyridinyl]-3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, tetrapotassium salt (9CI) (CA INDEX NAME)

●4 K

RN 158498-78-3 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-(4-sulfophenoxy)-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, tetrapotassium salt (9CI) (CA INDEX NAME)

●4 K

10/038,554 Page 1

L7 ANSWER 36 OF 71 CAPLUS COPYRIGHT 2003 ACS on STN ACCESSION NUMBER: 1999:405038 CAPLUS DOCUMENT NUMBER: 131:60020 TITLE: Novel dye-polysaccharide conjugates and their use as diagnostic agents Bosies, Elmar; Hein, Heinz-Michael; Reiter, Rudolf; INVENTOR(S): Josel, Hans-Peter PATENT ASSIGNEE(S): Roche Diagnostics GmbH, Germany PCT Int. Appl., 36 pp. SOURCE: CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: German FAMILY ACC. NUM. COUNT: PATENT INFORMATION: APPLICATION NO. PATENT NO. KIND DATE DATE WO 9931183 19990624 A1 WO 1998-EP8282 19981217 W: CA, JP, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE EP 934986 **A**1 19990811 EP 1997-122248 19971217 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO CA 2315207 AA19990624 CA 1998-2315207 19981217 EP 1040168 A120001004 EP 1998-965849 19981217 EP 1040168 B120021106 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI AT 227324 E 20021115 AT 1998-965849 19981217 ES 2187079 20030516 T3ES 1998-965849 19981217 PRIORITY APPLN. INFO.: EP 1997-122248 A 19971217 WO 1998-EP8282 19981217 OTHER SOURCE(S): MARPAT 131:60020 Dye-polysaccharide or -cyclosaccharide conjugates are prepd. and used for

- detg. the glomerular filtration rate in humans. Thus, IR 780 iodide was treated with the reaction product of 4-HOC6H4CH2CH2CO2H and NaH to give a carboxy-functional bridged polymethine dye. The succinimidyl ester of the dye reacted with O-(3-aminopropyl)inulin to form a conjugate.
- 228100-96-7DP, conjugates with inulin RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses) (dye-polysaccharide conjugates and their use as diagnostic agents)
- RN228100-96-7 CAPLUS
- 3H-Indolium, 2-[2-[4-(2-carboxyethyl)phenoxy]-3-[(1,3-dihydro-3,3-CNdimethyl-1-propyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1yl]ethenyl]-3,3-dimethyl-1-propyl-, inner salt (9CI) (CA INDEX NAME)

IT 228101-18-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of dyes and their polysaccharide conjugates for use as diagnostic agents)

RN 228101-18-6 CAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-3,3-dimethyl-1-propyl-2H-indol-2-ylidene)ethylidene]-2-[4-[3-[(2,5-dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]phenoxy]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-propyl- (9CI) (CA INDEX NAME)

PAGE 1-A

REFERENCE COUNT:

THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/038,554 Page 1

L7 ANSWER 69 OF 71 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER:

1992:513516 CAPLUS 117:113516

DOCUMENT NUMBER: TITLE:

Substitution reactions of a nucleofugal group in

heptamethine cyanine dyes. Synthesis of an

isothiocyanato derivative for labeling of proteins

with a near-infrared chromophore

AUTHOR(S):

Strekowski, Lucjan; Lipowska, Malgorzata; Patonay,

Gabor

CORPORATE SOURCE:

Dep. Chem., Georgia State Univ., Atlanta, GA,

30303-3083, USA

SOURCE:

Journal of Organic Chemistry (1992), 57(17), 4578-80

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE:

LANGUAGE:

Journal English

GI

The reactions of dye I with MeONa, MeNH2, PhONa, PhSNa, PhSH, and 4-H2NPhSH to yield the corresponding derivs., hydrodechlorination of I in the presence of EtSNa or PhSNa/Ph2PH, and synthesis of the SCN-substituted I, a new reagent for ultratrace detection of proteins, are described.

IT 142743-88-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

I

(prepn. and reaction of, with sodium ethylsuflide or sodium phenylsulfide)

RN 142743-88-2 CAPLUS

CN 3H-Indolium, 1-ethyl-2-[2-[2-[(4-aminophenyl)thio]-3-[(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 142743-87-1 CMF C40 H46 N3 S

CM 2

CRN 14797-73-0 CMF Cl O4

10/038,554 Page 1

L7 ANSWER 67 OF 71 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1994:56667 CAPLUS

DOCUMENT NUMBER: 120:56667

TITLE: New near-infrared cyanine dyes for labeling of

proteins

AUTHOR(S): Lipowska, Malgorzata; Patonay, Gabor; Strekowski,

Lucjan

CORPORATE SOURCE: Dep. Chem., Georgia State Univ., Atlanta, GA, 30303,

USA

SOURCE: Synthetic Communications (1993), 23(21), 3087-94

CODEN: SYNCAV; ISSN: 0039-7911

DOCUMENT TYPE:

LANGUAGE:

Journal English

GI

- AB Isothiocyanato-functionalized cyanine dyes I (X = 0, S) for labeling of proteins at amino groups are synthesized. The dyes and their adducts with amines show strong absorbance and fluorescence in the near-IR region of 750-850 nm.
- IT 152111-86-9P

 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

 (prepn. and deprotection of)
- RN 152111-86-9 CAPLUS
- CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenoxy]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt, monosodium salt (9CI) (CA INDEX NAME)

Na

IT 152111-89-2P 152111-92-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and near-IR spectra of)

RN 152111-89-2 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-[4-[[[[2-(1,1-dimethylethoxy)-2-oxoethyl]amino]thioxomethyl]amino]phenoxy]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt, monosodium salt (9CI) (CA INDEX NAME)

Na

RN 152111-92-7 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-

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Page 3

2-ylidene]ethylidene]-2-[[4-[[[[2-(1,1-dimethylethoxy)-2-oxoethyl]amino]thioxomethyl]amino]phenyl]thio]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt, monosodium salt (9CI) (CA INDEX NAME)

Na

IT 152111-88-1P 152111-91-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction with glycine ester)

RN 152111-88-1 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-(4-isothiocyanatophenoxy)-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, monosodium salt (9CI) (CA INDEX NAME)

RN 152111-91-6 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-[(4-isothiocyanatophenyl)thio]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, monosodium salt (9CI) (CA INDEX NAME)

Na

IT 152111-87-0P 152111-90-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction with thiophosgene)

RN 152111-87-0 CAPLUS

CN 3H-Indolium, 2-[2-[2-(4-aminophenoxy)-3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt, monosodium salt (9CI) (CA INDEX NAME)

RN 152111-90-5 CAPLUS

CN 3H-Indolium, 2-[2-[2-[(4-aminophenyl)thio]-3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt, monosodium salt (9CI) (CA INDEX NAME)

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L7 ANSWER 45 OF 71 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER:

1997:575537 CAPLUS

DOCUMENT NUMBER:

127:231448

TITLE:

Functionalized Tricarbocyanine Dyes as Near-Infrared

Fluorescent Probes for Biomolecules

AUTHOR(S):

Flanagan, James H., Jr.; Khan, Shaheer H.; Menchen,

Steve; Soper, Steven A.; Hammer, Robert P.

Department of Chemistry, Louisiana State University, CORPORATE SOURCE:

Baton Rouge, LA, 70803-1804, USA

SOURCE:

Bioconjugate Chemistry (1997), 8(5), 751-756

CODEN: BCCHES; ISSN: 1043-1802

American Chemical Society

PUBLISHER: DOCUMENT TYPE:

Journal

LANGUAGE:

English

OTHER SOURCE(S):

CASREACT 127:231448

The syntheses of 3 novel functionalized tricarbocyanine dyes are ABdescribed. These dyes contg. isothiocyanate and succinimidyl ester functional groups are reactive toward primary amines and can be used as fluorescent probes for biol. pertinent compds. such as amino acids and functionalized dideoxynucleotides. The absorption and fluorescence maxima occur in the near-IR regin of the spectrum (770-820 nm). The succinimidyl ester proved to be very sensitive to hydrolysis and was generated in situ to label amino acids and alkyl amines. The isothiocyanates were less susceptible to hydrolysis and were conjugated using org. modified [40% (vol./vol.) acetonitrile] buffers to amino acids. A dye with an alkyl isothiocyanate moiety showed conjugation to amino-functionalized dideoxynucleotide triphosphates.

160846-42-4P IT

> RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)

(functionalized tricarbocyanine dyes as near-IR fluorescent probes for biomols.)

RN160846-42-4 CAPLUS

3H-Indolium, 2-[2-[3-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-CN2-ylidene]ethylidene]-2-[(4-isothiocyanatophenyl)thio]-1-cyclohexen-1yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, bis(inner salt), (E,E,E)-(9CI) (CA INDEX NAME)

Double bond geometry as shown

IT 195382-08-2P 195382-09-3P 195382-11-7P 195382-12-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(functionalized tricarbocyanine dyes as near-IR fluorescent probes for biomols.)

RN 195382-08-2 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]ethylidene]-2-[4-(2-isothiocyanatoethyl)phenoxy]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, ion(1-), (all-E)-(9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 195382-09-3 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]ethylidene]-2-[4-[3-[(2,5-dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]phenoxy]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, ion(1-), (all-E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 195382-11-7 CAPLUS

CN 3H-Indolium, 2-[2-[2-[(4-aminophenyl)thio]-3-[[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, ion(1-), (all-E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 195382-12-8 CAPLUS

CN 3H-Indolium, 2-[2-[4-(2-carboxyethyl)phenoxy]-3-[[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, ion(1-), (all-E)-(9CI) (CA INDEX NAME)

Double bond geometry as shown.

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CAPLUS COPYRIGHT 2003 ACS on STN L7 ANSWER 35 OF 71

ACCESSION NUMBER:

1999:714823 CAPLUS

DOCUMENT NUMBER:

132:102160

TITLE:

Development of near-infrared fluorophoric labels for

the determination of fatty acids separated by

capillary electrophoresis with diode laser induced

fluorescence detection

AUTHOR(S):

Gallaher, David L. Jr.; Johnson, Mitchell E.

CORPORATE SOURCE:

Department of Chemistry and Biochemistry, Duquesne

Univ., Pittsburgh, PA, 15230, USA

SOURCE:

Analyst (Cambridge, United Kingdom) (1999), 124(11),

1541-1546

CODEN: ANALAO; ISSN: 0003-2654 Royal Society of Chemistry

PUBLISHER: DOCUMENT TYPE:

Journal

LANGUAGE:

English

Synthesis and characterization of a polymethine cyanine near-IR (NIR) ABfluorophoric label for the derivatization and detn. of fatty acids sepd. by capillary electrophoresis are described. The label contains an arom. amine functionality, which was used to form a covalent linkage with the analyte. Various linking chemistries are explored, including direct amine-acid condensation using dicyclohexylcarbodiimide (DCC) as a carboxyl activating group. Spectrofluorometry was used to probe the fluorescence efficiency of the label to assist in choosing a sepn. medium for capillary electrophoretic sepn. A nonaq. sepn. medium for capillary zone electrophoresis was used to provide high quantum efficiency for fluorescence and adequate soly. of fatty acid analytes. laser-induced fluorescence detection following electrophoresis of a simple mixt. of labeled fatty acids shows the applicability of this method to biol. relevant carboxylic acid analytes.

142743-87-1P IT

RL: ARG (Analytical reagent use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses) (prepn. and NMR and use as near-IR fluorophoric labels for detn. of fatty acids sepd. by capillary electrophoresis with diode laser induced fluorescence detection)

142743-87-1 CAPLUS RN

3H-Indolium, 1-ethyl-2-[2-[2-[(4-aminophenyl)thio]-3-[(1-ethyl-1,3-dihydro-CN3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-(CA INDEX NAME) dimethyl- (9CI)

16

REFERENCE COUNT:

THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS

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L7 ANSWER 33 OF 71 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:188738 CAPLUS

DOCUMENT NUMBER: 132:302697

TITLE: Nonaqueous capillary electrophoresis of fatty acids

derivatized with a near-infrared fluorophore

AUTHOR(S): Gallaher, David L., Jr.; Johnson, Mitchell E.

CORPORATE SOURCE: Department of Chemistry and Biochemistry, Duquesne

University, Pittsburgh, PA, 15282-1530, USA

SOURCE: Analytical Chemistry (2000), 72(9), 2080-2086

CODEN: ANCHAM; ISSN: 0003-2700

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

Satd. linear fatty acids, derivatized with a near-IR absorbing fluorescent ABdye, were sepd. in 100% methanol with 12.5 mM tetraethylammonium chloride added as a charge carrier. Sepn. at 380 V/cm was acceptable for acids that differed in length by a single carbon. The labeled linear fatty acids behaved as random coils in the nonag. sepn. medium, as shown in a fit to a simple theor. expression. However, even in 100% methanol with a trimethylsilylated capillary, significant adsorption to the capillary wall occurred, which reduced resoln. and slowed the sepn. Addn. of water to the methanol medium caused significant differences in sepn. behavior of high mol. wt. acids (>C16). Addn. of a cetyltrimethylammonium bromide surfactant to the sepn. medium dynamically coated the capillary and greatly improved the sepn. The surfactant also interacted with the acyl tail, apparently causing it to collapse. Resoln. in an optimal sepn. medium (20 mM surfactant) ranged from 1.6 to 1.1, depending on chain length, and theor. plate heights were under 4 .mu.m (N > 105). Resoln. was more than adequate to sep. stearic (C18:0) from oleic (C18:1) acid, as well as other unsatd. C18 homologs.

IT 264915-22-2

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (nonaq. capillary electrophoresis of fatty acids derivatized with near-IR fluorophore)

RN 264915-22-2 CAPLUS

CN 3H-Indolium, 2-[2-[2-[(4-aminophenyl)thio]-3-[(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, iodide (9CI) (CA INDEX NAME)

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ACCESSION NUMBER:
                         2002:368351 CAPLUS
                         136:366118
DOCUMENT NUMBER:
                         Non-isotopic detection of osteoblastic activity in
TITLE:
                         vivo using modified bisphosphonates
                         Frangioni, John V.
INVENTOR(S):
PATENT ASSIGNEE(S):
                         Beth Israel Deaconess Medical Center, USA
SOURCE:
                         PCT Int. Appl., 45 pp.
                         CODEN: PIXXD2
                         Patent
DOCUMENT TYPE:
                         English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                           APPLICATION NO.
     PATENT NO.
                      KIND
                            DATE
                                                            DATE
     WO 2002038190
                       A2
                            20020516
                                           WO 2001-US51312
                                                             20011029
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
             HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
             RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
             VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                       A5
                            20020521
     AU 2002036683
                                           AU 2002-36683
                                                             20011029
PRIORITY APPLN. INFO.:
                                        US 2000-244020P P 20001027
                                        WO 2001-US51312 W 20011029
OTHER SOURCE(S):
                         MARPAT 136:366118
     The present invention is directed to a non-isotopic methods for the in
AB
    vitro and in vivo detection of hydroxyapatite-pos. cells and structures.
     The NHS ester of the near-IR fluorophore IRDye78 was conjugated with
     pamidronate disodium to make Pam78. Pam78 was used in near-IR
     fluorescence imaging of hydroxyapatite in hairless mice. As early as 15
     min post-injection, Pam78 uptake in the spine, ribs, paws, and knees could
     be detected above background, and by three hours, most bony structures
     were visible.
     424821-77-2P
    RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);
     PKT (Pharmacokinetics); PRP (Properties); SPN (Synthetic preparation);
    ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
     (Pam 78; nonisotopic detection of osteoblastic activity in vivo using
        modified bisphosphonates)
     424821-77-2 CAPLUS
RN
     3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-
CN
     2H-indol-2-ylidene]ethylidene]-2-[4-[3-[(3-hydroxy-3,3-
     diphosphonopropyl) amino] -3-oxopropyl] phenoxy] -1-cyclohexen-1-yl] ethenyl] -
     3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, pentasodium salt (9CI)
       (CA INDEX NAME)
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CAPLUS COPYRIGHT 2003 ACS on STN

L7

ANSWER 14 OF 71

●5 Na

IT 398142-13-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(nonisotopic detection of osteoblastic activity in vivo using modified bisphosphonates)

RN 398142-13-7 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-[4-[3-[(2,5-dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]phenoxy]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A

Page 2

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●3 Na